DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027095
Date Inspected: 26-Jan-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Jobsite

CWI Name:	As noted below			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS OBG

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

12E/PP114/E4 Lifting Lug Holes W1, W2 and W3 Repairs (Exterior)

This QA Inspector randomly observed ABF welder Eric Sparks (Welder ID 3040) performing the repair welding operation of five (5) ultrasonic indications as per the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position on “A” deck Lifting Lug Holes W1, W2 and W3 at 12E/PP114/E4. This QA Inspector observed the use of E7018-H4R electrodes and QC Inspector Fred Von Hoff verify that the preheat temperature was at the minimum of 66 degrees C and that the welding parameters (Amps=135) were in accordance with WPS D1.5–1001- Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

13E/PP122.5/E3 Lifting Lug Hole W1/W2 (Exterior)

This QA Inspector randomly observed ABF qualified welder Salvador Sandoval utilizing a propane burner to pre-heat the complete joint penetration (CJP) joint of the near completed W1 at 13E/PP122.5/E3. The welder made a few more passes to complete the work and employed a small disc grinder to blend the reinforcement to a near flush condition. Upon completion of W1 the welder made preparations to perform fit-up operations on W2. This QA inspector observed QC Inspector Fred Von Hoff measure the planar offset of the lifting lug hole insert and the

root gap of the joint as this QA Inspector verified that both were within tolerance and in accordance with the approved WPS. This QA Inspector observed ABF welder Salvador Sandoval ID# 2202 preheat the joint to 125°F prior to performing SMAW in the 1G flat position on Lifting Lug Hole W2 located at 13E/PP122.5/E3. This QA Inspector observed the QC Inspector monitoring the progress to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1050A-CU. The parameters were recorded as (Amperes=187). The QA Inspector randomly observed the ABF welder grind and blend the start and stop areas of the weld throughout the joints depth. The QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work on the exterior side of W2 was completed on this date and appeared to be in general conformance with the contract documents. This joint is a Seismic Performance Critical Member (SPCM).

13E/14E/A4 (Interior)

This QA Inspector randomly observed ABF welding operator James Zhen (ID 6001) performing the Flux Core Arc Welding with gas (FCAW-G) process utilizing a “Bug-O” motorized rail system with a magnetic base attached in the (4G) overhead position on the underside of deck plate “A3”, at 13E/14E of the OBG. This QA Inspector observed QC Inspector Fred Von Hoff monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3110-4. The parameters were recorded as (A=242/V=25.5/TS=190/HI=1. 9). This QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work was in progress and appeared to be in general conformance to the contract requirements. This joint is a Seismic Performance Critical Member (SPCM).

12E/13E/A5 (Interior)

This QA Inspector at random intervals, observed QC Inspector Fred Von Hoff calculate and set the parameters for ABF certified welder Xiao Jian Wan utilizing a LN-25 Flux Core Arc Welder (FCAW-G). Mr. Wan performed FCAW-G in the 4G overhead position with an amperage of 235 at 23.6 volts with a travel speed of 304mm’s per minute. This QA Inspector observed the welder clean each pass as the QC Inspector measured the inter-pass temperatures with an infra-red temperature gun. The QC Inspector was observed monitoring the welding for compliance with ABF-WPS-D1.5-3110-4 and this QA Inspector noted that the Heat Input = 1.09 joules. This QA Inspector made subsequent observations throughout the shift and noted that the work was in progress and appeared to be in general compliance with the contract specifications.

13E/14E/D2/R2 (Interior)

This QA Inspector observed QC Inspector Jesse Cayabyab perform ultrasonic inspection of an R1 repair on D2 at 13E/14E on the interior of the OBG. This QA Inspector observed Mr. Cayabyab calibrate the USM-35 prior to testing. This QA Inspector observed that Mr. Cayabyab detected a rejectable ultrasonic indication at y+ 760 mm. The deck plate section is 30 mm thick and the depth of the ultrasonic indication was 18 ~ 19 mm. The length of the indication was 50 mm and the indication rating was a (+7) db.

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

WELDING INSPECTION REPORT

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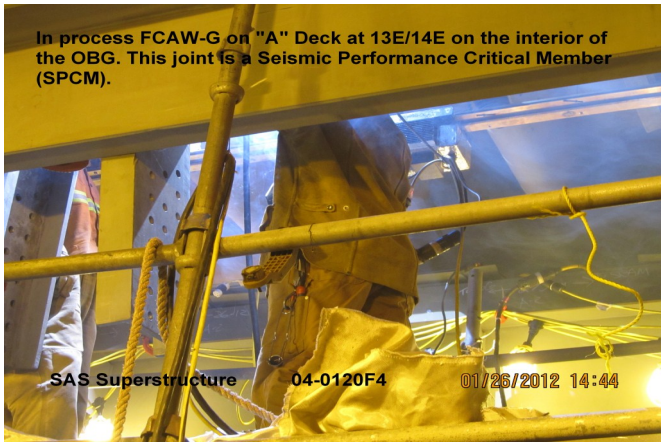
Summary of Conversations:

The were no pertinent conversations to report.



Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer